

IN THE CLAIMS:

1 1. (original) An apparatus for generating a computer numerically controlled
2 program, the apparatus comprising:
3 a specifier module having a first input that receives data defining a
4 characteristic of a piece of equipment, a second input that receives data defining a desired
5 characteristic of a seal for use in the piece of equipment, and an output that provides a
6 profile of a seal that is compatible with the piece of equipment; and
7 a computer numerically controlled program generator, having an input that
8 receives the profile of the seal and an output that provides a computer numerically
9 controlled program for machining an element of the seal based upon the profile of the
10 seal, so that the seal is compatible with the piece of equipment.

1 2. (original) The apparatus of claim 1, further comprising a seal design module
2 that receives the profile of the seal and an output that provides dimensions based upon the
3 profile of the seal, the dimensions defining the seal such that the seal is compatible with
4 the piece of equipment.

1 3. (original) The apparatus of claim 2, wherein the seal design module further
2 provides at least one custom manufacturing print for the seal that is compatible with the
3 piece of equipment.

1 4. (original) The apparatus of claim 1, further comprising a proposal generator
2 that provides a proposal for manufacturing the seal so that the seal meets the desired
3 characteristic and fits the piece of equipment.

1 5. (original) The apparatus of claim 4, wherein the proposal includes at least one
2 of price information, modification notes, warnings, a bill of materials, an order form, a
3 dimension verification form, and a plant standardization survey.

1 6. (original) The apparatus of claim 1, wherein the piece of equipment includes a
2 pump.

1 7. (original) The apparatus of claim 6, wherein the data defining the characteristic
2 of the piece of equipment includes an identification of a process fluid for the pump.

1 8. (original) The apparatus of claim 1, wherein the data defining the characteristic
2 of the piece of equipment includes dimensions that describe the piece of equipment.

1 9. (original) The apparatus of claim 1, wherein the data defining the characteristic
2 of the piece of equipment includes a description of an environmental operating condition
3 of the piece of equipment.

1 10. (original) A computer operated method for generating a computer numerically
2 controlled program, the method comprising the steps of:
3 receiving a first input defining a characteristic of a piece of equipment;
4 receiving a second input defining a desired characteristic of a seal for use
5 in the piece of equipment; and
6 automatically generating a computer numerically controlled program for
7 machining an element of the seal based upon the first input and the second input, so that
8 the seal is compatible with the piece of equipment.

1 11. (original) The method of claim 10, further comprising a step of generating
2 dimensions based upon the first input and the second input, the dimensions defining a
3 seal that is compatible with the piece of equipment.

1 12. (original) The method of claim 11, further comprising a step of generating at
2 least one custom manufacturing print for the seal that is compatible with the piece of
3 equipment.

1 13. (original) The method of claim 10, further comprising a step of generating a
2 proposal for manufacturing the seal that meets the desired characteristic and fits the piece
3 of equipment.

1 14. (original) The method of claim 13, wherein the proposal includes at least one
2 of price information, modification notes, warnings, a bill of materials, an order form, a
3 dimension verification form, and a plant standardization survey.

1 15. (original) The method of claim 10, wherein the piece of equipment includes a
2 pump.

1 16. (original) The method of claim 15, wherein the characteristic of the piece of
2 equipment includes an identification of a process fluid for the pump.

1 17. (original) The method of claim 10, wherein the characteristic of the piece of
2 equipment includes dimensions that describe the piece of equipment.

1 18. (original) The method of claim 10, wherein the characteristic of the piece of
2 equipment includes a description of an environmental operating condition of the piece of
3 equipment.

1 19. (original) An apparatus for generating a computer numerically controlled
2 program, the apparatus comprising:

3 means for receiving a first input defining a characteristic of a piece of
4 equipment;

5 means for receiving a second input defining a desired characteristic of a
6 seal for use in the piece of equipment; and
7 means for generating a computer numerically controlled program for
8 machining an element of the seal based upon the first input and the second input, so that
9 the seal is compatible with the piece of equipment.

1 20. (original) The apparatus of claim 19, further comprising means for generating
2 dimensions based upon the first input and the second input, the dimensions defining a
3 seal that is compatible with the piece of equipment.

1 21. (original) The apparatus of claim 20, further comprising means for generating
2 at least one custom manufacturing print for the seal that is compatible with the piece of
3 equipment.

1 22. (original) The apparatus of claim 19, further comprising means for generating
2 a proposal for manufacturing the seal that meets the desired characteristic and fits the
3 piece of equipment.

1 23. (original) The apparatus of claim 22, wherein the proposal includes at least
2 one of price information, modification notes, warnings, a bill of materials, an order form,
3 a dimension verification form, and a plant standardization survey.

1 24. (original) The apparatus of claim 19, wherein the piece of equipment includes
2 a pump.

1 25. (original) The apparatus of claim 24, wherein the characteristic of the piece of
2 equipment includes an identification of a process fluid for the pump.

1 26. (original) The apparatus of claim 19, wherein the characteristic of the piece of
2 equipment includes dimensions that describe the piece of equipment.

1 27. (original) The apparatus of claim 19, wherein the characteristic of the piece of
2 equipment includes a description of an environmental operating condition of the piece of
3 equipment.

1 28. (original) An apparatus for generating a computer numerically controlled
2 program, comprising:

3 a database of templates of computer numerically controlled programs,
4 specifying operations for a program for machining an element, without dimensional
5 information; and

6 a computer numerically controlled program generator, having an input that
7 receives the profile of the seal and templates from the database of templates for the seal,

8 and an output that provides a computer numerically controlled program for machining an
9 element of the seal based upon the profile of the seal, so that the seal is compatible with
10 the piece of equipment.

1 29. (original) A method for making a mechanical seal, comprising the steps of:
2 preparing templates of computer numerically controlled programs,
3 specifying operations for a program for machining an element, without dimensional
4 information; and
5 receiving a profile of a seal and the templates for the seal; and
6 generating a computer numerically controlled program for machining an
7 element of the seal based upon the profile of the seal, so that the seal is compatible with
8 the piece of equipment.

1 30. (canceled)